Products and Lubricants (incorporated by reference, see §98.7).

(xi) ASTM D5373-08 Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Laboratory Samples of Coal (incorporated by reference, see §98.7).

(xii) ASTM D6609-08 Standard Guide for Part-Stream Sampling of Coal (incorporated by reference, see §98.7).

(xiii) ASTM D6883-04 Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles (incorporated by reference, see §98.7).

(xiv) ASTM D7430-08ae1 Standard Practice for Mechanical Sampling of Coal (incorporated by reference, *see* §98.7).

(xv) ASTM UOP539-97 Refinery Gas Analysis by Gas Chromatography (incorporated by reference, see § 98.7).

(xvi) GPA 2261-00 Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography (incorporated by reference, see § 98.7).

(xvii) ISO 3170: Petroleum Liquids—Manual sampling—Third Edition (incorporated by reference, see §98.7).

(xviii) ISO 3171: Petroleum Liquids—Automatic pipeline sampling—Second Edition (incorporated by reference, *see* §98.7).

- (c) For units using the calculation methodologies described in this section, the records required under §98.3(g) must include both the company records and a detailed explanation of how company records are used to estimate the following:
- (1) Fuel and feedstock consumption, when solid fuel and feedstock is combusted and a CEMS is not used to measure GHG emissions.
- (2) Fossil fuel consumption, when, pursuant to 98.33(e), the owner or operator of a unit that uses CEMS to quantify  $CO_2$  emissions and that combusts both fossil and biogenic fuels separately reports the biogenic portion of the total annual  $CO_2$  emissions.
- (3) Sorbent usage, if the methodology in §98.33(d) is used to calculate CO<sub>2</sub> emissions from sorbent.
- (d) The owner or operator must document the procedures used to ensure the accuracy of the estimates of fuel and feedstock usage and sorbent usage (as applicable) in paragraph (b) of this sec-

tion, including, but not limited to, calibration of weighing equipment, fuel and feedstock flow meters, and other measurement devices. The estimated accuracy of measurements made with these devices must also be recorded, and the technical basis for these estimates must be provided.

## § 98.165 Procedures for estimating missing data.

A complete record of all measured parameters used in the GHG emissions calculations is required. Therefore, whenever a quality-assured value of a required parameter is unavailable (e.g., if a meter malfunctions during unit operation), a substitute data value for the missing parameter must be used in the calculations as specified in paragraphs (a), (b), and (c) of this section:

(a) For each missing value of the monthly fuel and feedstock consumption, the substitute data value must be the best available estimate of the fuel and feedstock consumption, based on all available process data (e.g., hydrogen production, electrical load, and operating hours). You must document and keep records of the procedures used for all such estimates.

(b) For each missing value of the carbon content or molecular weight of the fuel and feedstock, the substitute data value must be the arithmetic average of the quality-assured values of carbon contents or molecular weight of the fuel and feedstock immediately preceding and immediately following the missing data incident. If no quality-assured data on carbon contents or molecular weight of the fuel and feedstock are available prior to the missing data incident, the substitute data value must be the first quality-assured value carbon contents or molecular weight of the fuel and feedstock obtained after the missing data period. You must document and keep records of the procedures used for all such esti-

(c) For missing CEMS data, you must use the missing data procedures in §98.35.

#### § 98.166 Data reporting requirements.

In addition to the information required by §98.3(c), each annual report must contain the information specified

#### § 98.167

in paragraphs (a) or (b) of this section, as appropriate:

- (a) If a CEMS is used to measure CO<sub>2</sub> emissions, then you must report the relevant information required under §98.36 for the Tier 4 Calculation Methodology and the following information in this paragraph (a):
- (1) Unit identification number and annual CO<sub>2</sub> process emissions.
- (2) Annual quantity of hydrogen produced (metric tons) for each process unit and for all units combined.
- (3) Annual quantity of ammonia produced (metric tons), if applicable, for each process unit and for all units combined.
- (b) If a CEMS is not used to measure CO<sub>2</sub> emissions, then you must report the following information for each hydrogen production process unit:
- (1) Unit identification number and annual CO<sub>2</sub> process emissions.
- (2) Monthly consumption of each fuel and feedstock used for hydrogen production and its type (scf of gaseous fuels and feedstocks, gallons of liquid fuels and feedstocks, kg of solid fuels and feedstocks).
- (3) Annual quantity of hydrogen produced (metric tons).
- (4) Annual quantity of ammonia produced, if applicable (metric tons).
- (5) Monthly analyses of carbon content for each fuel and feedstock used in hydrogen production (kg carbon/kg of gaseous and solid fuels and feedstocks, (kg carbon per gallon of liquid fuels and feedstocks).
- (6) Monthly analyses of the molecular weight of gaseous fuels and feed-stocks (kg/kg-mole) used, if any.
- (c) Quarterly quantity of  $CO_2$  collected and transferred off site in either gas, liquid, or solid forms (kg), following the requirements of subpart PP of this part.
- (d) Annual quantity of carbon other than  $CO_2$  collected and transferred off site in either gas, liquid, or solid forms (kg carbon).

### § 98.167 Records that must be retained.

In addition to the information required by §98.3(g), you must retain the records specified in paragraphs (a) through (b) of this section for each hydrogen production facility.

- (a) If a CEMS is used to measure  $CO_2$  emissions, then you must retain under this subpart the records required for the Tier 4 Calculation Methodology in §98.37.
- (b) If a CEMS is not used to measure CO<sub>2</sub> emissions, then you must retain records of all analyses and calculations conducted as listed in §§ 98.166(b), (c), and (d).

#### § 98.168 Definitions.

All terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

# Subpart Q—Iron and Steel Production

### § 98.170 Definition of the source category.

The iron and steel production source category includes facilities with any of the following processes: taconite iron ore processing, integrated iron and steel manufacturing, cokemaking not colocated with an integrated iron and steel manufacturing process, and electric arc furnace (EAF) steelmaking not colocated with an integrated iron and steel manufacturing process. Integrated iron and steel manufacturing means the production of steel from iron ore or iron ore pellets. At a minimum, an integrated iron and steel manufacturing process has a basic oxygen furnace for refining molten iron into steel. Each cokemaking process and EAF process located at a facility with an integrated iron and steel manufacturing process is part of the integrated iron and steel manufacturing fa-

#### § 98.171 Reporting threshold.

You must report GHG emissions under this subpart if your facility contains an iron and steel production process and the facility meets the requirements of either §98.2(a)(1) or (2).

### $\S 98.172$ GHGs to report.

(a) You must report under subpart C of this part (General Stationary Fuel Combustion Sources) the emissions of  $\text{CO}_2$ ,  $\text{CH}_4$ , and  $\text{N}_2\text{O}$  from each stationary combustion unit following the requirements of subpart C except for flares. Stationary combustion units include,